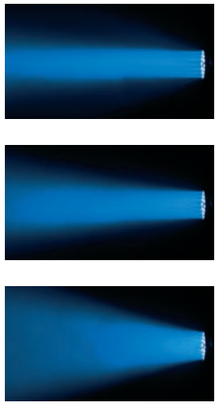
MAC 401 Dual™

Martin®

Creative LED washlight with zoom



A powerful broad beam produces a refreshingly original mid-air look while a fast linear zoom generates beam angles from narrow to wide.

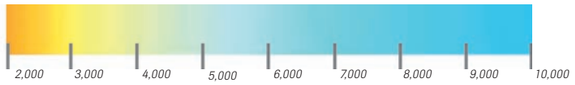
The Martin Professional MAC 401 Dual is a creatively fresh and versatile LED moving head washlight with an innovative double-sided design that gives it flexible dual functionality, for example as a double washlight or beam reflective mirror.

The MAC 401 Dual's advanced wash characteristics combine with a host of other useful features like fast zoom and individual LED segment control to add a new and inventive element to touring and rental applications, TV shows, corporate events, night-time venues and leisure environments.

A better blend of colors

Thirty-six, new, multi-color, single-point source LEDs produce an outstanding color quality. The 401 Dual's innovative color mixing system fully blends colors at the source before they leave each lens so that individual source colors are not seen. This eliminates the problem of rainbow shadows and the messy multi-color lens looks of traditional LED fixtures. Furthermore, LEDs are calibrated at the factory for excellent color consistency across fixtures.

Color Temperature (Kelvin)



The MAC 401 includes a variable CTC mode for color temperature changes from 2,000 – 10,000 K.

Bright and efficient

The MAC 401 Dual is a surprisingly powerful LED washlight with up to 6,600 lumens of output and excellent optical performance. The LEDs are extremely efficient and with a rated 50,000 hour lifetime you can forget about those continuous lamp replacements and enjoy the benefit of a lower cost of ownership.

Broad beam

The MAC 401 Dual's unique large lens face produces a refreshingly novel broad beam look. The distinctive wider beam has a brilliant appearance mid-air, gives a fresh look to any show and has become an LD favorite.

Speedy beam angle adjustments

The MAC 401's beam angle is speedy to adjust via a fast linear zoom for spreads from hypermode tight to a wide wash. Zooming from wide to hypermode takes less than 0.5 seconds.

Twice the creativity

The MAC 401 Dual's clever double-sided design adds a whole new dimension to lighting design. The unique plug-in feature allows users to add modules to the back of the fixture - other LED modules or special effect modules – for all new creative possibilities.

Multi-color, single-point source LEDs produce a broad range of outstanding colors that are fully blended before they leave each lens. The result is a better color blend with no rainbow shadows or sloppy multi-color lens looks.

Individual LED segment control

The MAC 401 Dual's 36 lenses are grouped into four equal segments, each segment with individual color and intensity control for new design and effect possibilities.

Create your own stunning eye candy effects and lens looks through control of each LED segment. Control all four LED segments together; the top and bottom segments; the left and right segments; or control each segment individually.

For even further effects options, an accessory gel frame holder allows LDs to insert frost filters or other custom filters.

Built-in effects

A host of built-in effects allows the user to create a variety of different looks fast. Overlay effects channels to create even more effects or control each LED segment individually to create your own.

Silence, please

For applications where noise is an issue like television and theater, a silent mode option virtually eliminates fan use for extended periods for noise free operation. And for television and film, the MAC 401 Dual LEDs give completely flicker free looks on camera.

High speed pan and tilt motors generate quick acceleration with smooth, accurate movement. A special fast mode setting boosts pan/tilt speed when needed.

Control options

For maximum control flexibility, both RGB and Hue/Saturation control modes are provided. This gives the user more control options, allowing use both with and without built-in effects.

Individual LED segment control of color and intensity allows users to create fresh, unique effects for increased design flexibility.

The 401 Dual also includes P3 over Ethernet connectors to future protect fixture compatibility with Martin's innovative P3-100 System Controller for video signal processing.

Firmware updates via DMX input make it easy to add new software features.

Energy efficient

The MAC 401 Dual offers all the benefits of LED technology like greater reliability, less maintenance and increased energy efficiency for a lower cost of ownership. In fact, power consumption is only 386 W with all LEDs at full. And because the LEDs only draw power when light is emitted from the fixture, and only at the level needed, the MAC 401 Dual provides enormous energy savings over HID fixtures that run continuously at full or near full power regardless of light level.

Durable, user-friendly design

Robust yet lightweight, the MAC 401's modular design makes for easy-to-access components for simple service and maintenance. For even greater maintenance ease - and savings in time and money - the MAC 401 will support RDM feedback protocol as a future firmware release.

The MAC 401 Dual's plug-n-play back panel allows users to add an LED module or special effect module to the fixture's reverse side for twice the design possibilities.

Specifications

Physical	
Length:	221 mm (8.7 in.)
Width:	505 mm (19.9 in.)
Height:	527 mm (20.7 in.)
Weight:	20 kg (44.1 lbs.)

Dynamic Effects	
Color mixing:	RGB or HSV
Red or hue:	0 - 100%
Green or saturation:	0 - 100%
Blue or value:	0 - 100%
Color temperature control:	Variable 10 000 - 2000 K
Electronic 'color wheel' effect:	Electronic 'color wheel' effect: 33 LEE-referenced colors plus white, variable-speed color-wheel rotation effect and random color
Pre-programmed effects:	Pre-programmed effects: Two super imposable chase/pulse/flip/flicker/ strobe/static effects with variable intensity, x-fading and 'pixel wheel' rotation speed
Strobe effect:	Electronic, with pulse and random effects
Electronic dimming:	0 - 100%, four dimming curve options
Zoom:	16° in Hypermode, 20° - 50°
Pan:	630° with two speed settings
Tilt:	300° with two speed settings

Optics	
Light source:	36 Osram multi-color LED high power emitters

Control and Programming	
Control:	DMX
Color control modes:	RGB or HSV
DMX channels:	13/17/21/25/33 depending on control mode & pixel grouping
Setting and addressing:	Control panel with LED display
Protocol:	USITT DMX512/1990
Transceiver:	RS-485

Construction	
Color:	Black
Housing:	High-impact flame-retardant thermoplastic and die-cast aluminum
Protection rating:	IP20

Installation	
Mounting points:	2 pairs of 1/4-turn locks
Orientation:	Any
Minimum distance to combustible materials:	200 mm (7.9 in.)
Minimum distance to illuminated surfaces:	200 mm (7.9 in.)
Minimum distance to persons and objects in beam zone:	1 m (3.3 ft.)

Connections	
AC power input:	Neutrik PowerCon
DMX data in/out:	5-pin locking XLR, RJ-45

Electrical	
AC power:	100-240 V, 50/60 Hz
Maximum total power consumption:	386 W (one LED module installed)
Maximum total power consumption:	766 W (two LED modules installed)
Power supply unit:	Electronic switch mode
Main fuse:	2 x 10 AT (for operation on 100-130 V supply), 2 x 5 AT (on 200-240 V supply)

Thermal	
Cooling:	Filtered forced air (temperature-regulated, low noise)
Maximum ambient temperature (Ta max.):	40° C (104° F)
Minimum ambient temperature (Ta min.):	5° C (41° F)
Maximum surface temperature, steady state:	80° C (176° F)
Total heat dissipation (calculated, +/- 10%), one module installed:	1312 BTU/hr
Total heat dissipation (calculated, +/- 10%), two modules installed:	2604 BTU/hr

Approvals	
EU safety:	EN 60598-1, EN 60598-2-17
EU EMC:	EN 61000-3-2, EN 61000-3-3, EN 61000-6-2, EN 61000-6-4
US safety:	UL 1598
For single head use only in USA	
Canadian safety:	CAN/CSA C.22.2 No. 250
For single head use only in Canada	

Included Items	
Two Omega clamp attachment brackets with 1/4-turn fasteners:	P/N 91602015
User manual:	P/N 35000229
Neutrik PowerCon NAC3FCA male input connector:	P/N 05342804
2 x 10 AT main fuses (for operation on 100-130 V supply):	P/N 05021029
2 x 5 AT main fuses (for operation on 200-240 V supply):	P/N 05021026

Accessories	
Color frame kit for MAC 401 Dual :	P/N 91610102
MAC 401 Dual double flightcase:	P/N 91510150
G-clamp:	P/N 91602003
Half-coupler clamp:	P/N 91602005
Quick trigger clamp:	P/N 91602007
Safety wire, universal, safe working load 50 kg (110.2 lbs.):	P/N 91604003
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 1 m (3.3 ft.):	P/N 91611242
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 2 m (6.6 ft.):	P/N 91611243
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 5 m (16.4 ft.):	P/N 91611244
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 10 m (32.8 ft.):	P/N 91611245
DMX cable, STP, 1 pair + shield, IEC/UL-CL, 20 m (65.6 ft.):	P/N 91611245

Ordering Information	
MAC 401 Dual, in cardboard box:	P/N 90231200

Martin Professional A/S

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Founded in 1986 and headquartered in Aarhus, Denmark, Martin Professional is a world leader in the creation of dynamic lighting solutions for the entertainment, architectural, and commercial sectors. Martin lighting solutions are industry standard on top tours and events, grace prestigious theatres, energize nightclubs, and decorate major television studios around the globe. The company operates the industry's most complete and capable distributor network with local partners in nearly 100 countries. For more information please visit www.martin.com

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